

Digital India Revolution in Digital Payments in India

GROUP 2



Digital India  Digital Payments

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What is Digital Revolution ?

What is Digital India ?

How has it impacted our life?

How has it contributed in
Digital Payment ?

What are the benefits and drawbacks
of digital payments ?



What is digital revolution ?

- The **Digital Revolution** (also known as the **Third Industrial Revolution**) is the shift from mechanical and analogue electronic technology to digital electronics which began in the latter half of the 20th century, with the adoption and proliferation of digital computers and digital record-keeping, that continues to the present day.
- Digital technology has enabled growth of the society and has touched people from all walks of life including fields such as education, science, technology, medicine, payments etc. It has revolutionized work practices.



What is digital India ?

- E-governance initiatives in India took a broader dimension in the mid 1990s.
- Digital India is a **flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy**, launched in 2015.
- It aims to **provide the much needed thrust to the nine pillars of growth areas**, namely
 - Broadband Highways,
 - Universal Access to Mobile Connectivity,
 - Public Internet Access Programme
 - e-Governance: Reforming Government through Technology,
 - e-Kranti - Electronic Delivery of Services,
 - Information for All
 - Electronic Manufacturing,
 - IT for Jobs
 - Early Harvest Programmes



How has Digital India impacted our life :-

- Digital Facilities of Government
- Change in Global Market
- Online Labour
- E-commerce
- Investment Sector
- Technology Start-ups
- Digital Programmes
- Education System
- Health Sector
- Agriculture Sector



Digital Payments – an outcome of Digitalization

Over the last few centuries, and particularly in the last few decades, our methods of monetary exchange and payments have developed rapidly alongside technological innovation.

Digital technology has paved the way for digital payments.

Needless to say, we've come a long way from “bartering spices for sheep” to “digital payments”.



What is Digital Payment?

A digital payment, sometimes called an electronic payment, is the transfer of value from one payment account to another using a digital device such as a mobile phone, POS (Point of Sales) computer, digital channel communications such as mobile wireless data.

The definition includes payments made with bank transfers, mobile money and payment cards including credit, debit and prepaid cards.

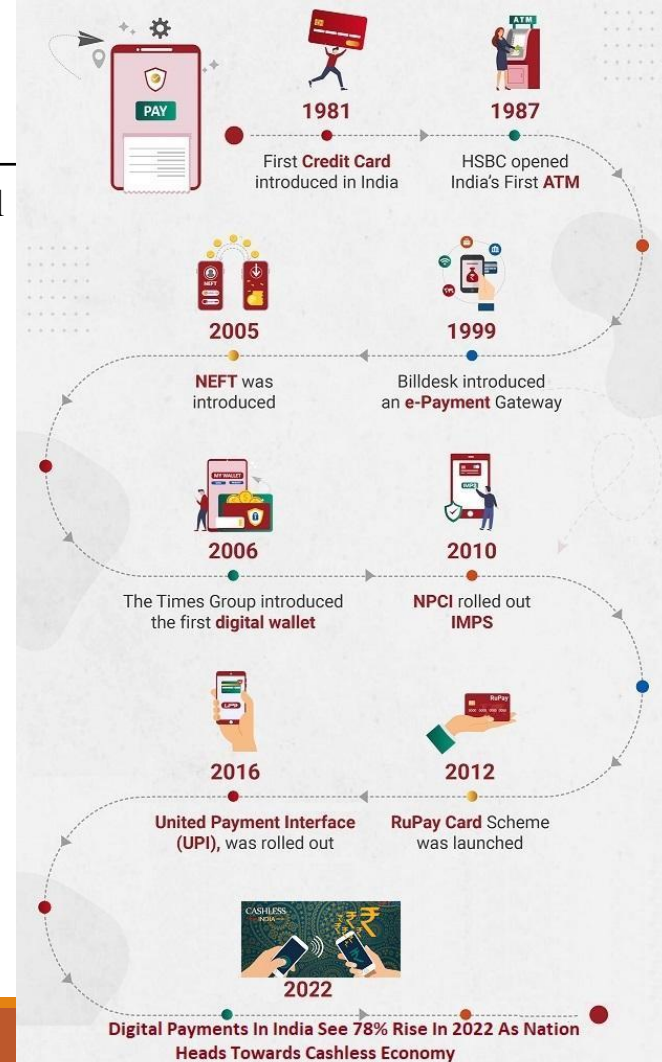


Evolution of Digital Payment

In 1983, a research paper by David Chaum introduced the idea of digital cash.

In India, the last decade has witnessed an exponential increase in the adoption of digital payments by a large section of the population. This was driven by increased access to the internet & the mobile phone.

The value of digital payments in India will grow three-fold to touch \$1 trillion by financial year 2026 compared to \$300 billion in financial year 2021 thanks to the government's initiative to increase financial access by combining no-frill bank accounts, the Aadhaar card and mobile connection.



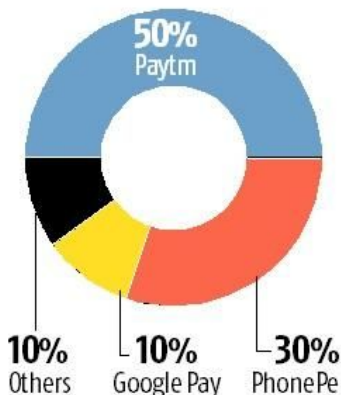
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INFORMATION:

1. Analysing historical data helps to innovate new Ideas and shape out scalable solutions.
2. User Demand, Competition within Industry, Better Recommendations, Cost Cutting Strategies are some of the examples of Payment Data Analytics.

MARKET SHARE OF P2M

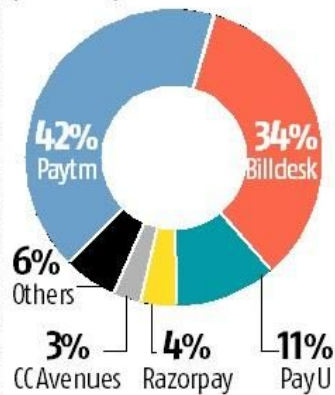
(merchant payments) in FY20



For FY20, P2M volume 8.2 bn transactions/year

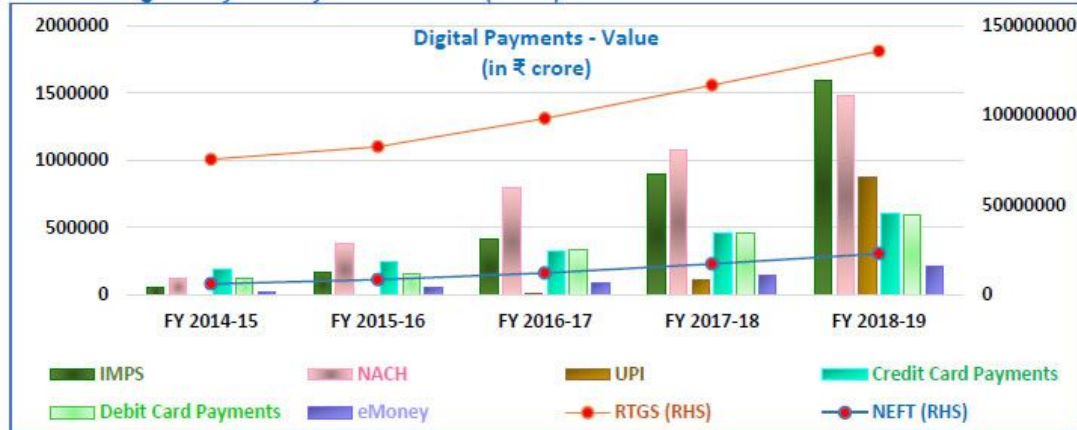
MARKET SHARE OF GATEWAY AGGREGATORS

Transactions/month (Jan 2020)



Average 942 mn transactions per month

Table 15: Digital Payment Systems in India (Value)



Source: RBI Data

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COMMUNICATION:

1. With the evolution of high speed internet, Digital Payments saw enormous growth.
2. Major Share of it is seen in developing countries.

Figure 1.5 Number of Worldwide Non-Cash Transactions (Billions), by Region, 2016–2021F

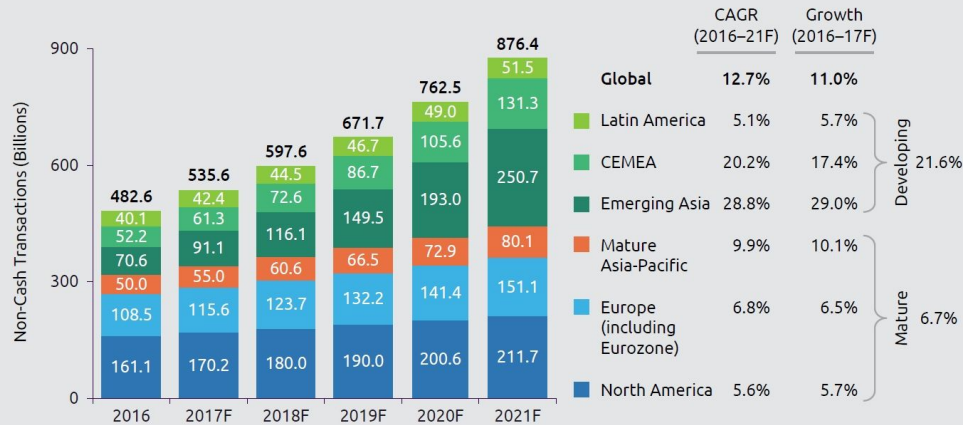
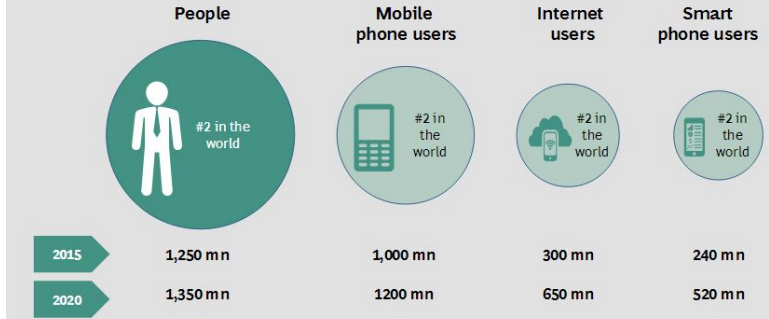


EXHIBIT 2.1 | India is Becoming a Digital Country

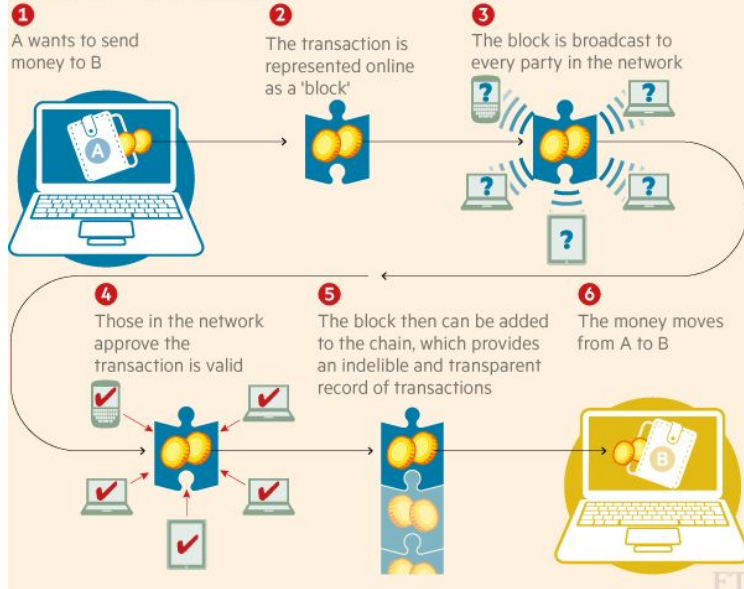


Sources: eMarketer, Ericsson, UN estimates, BCG research.

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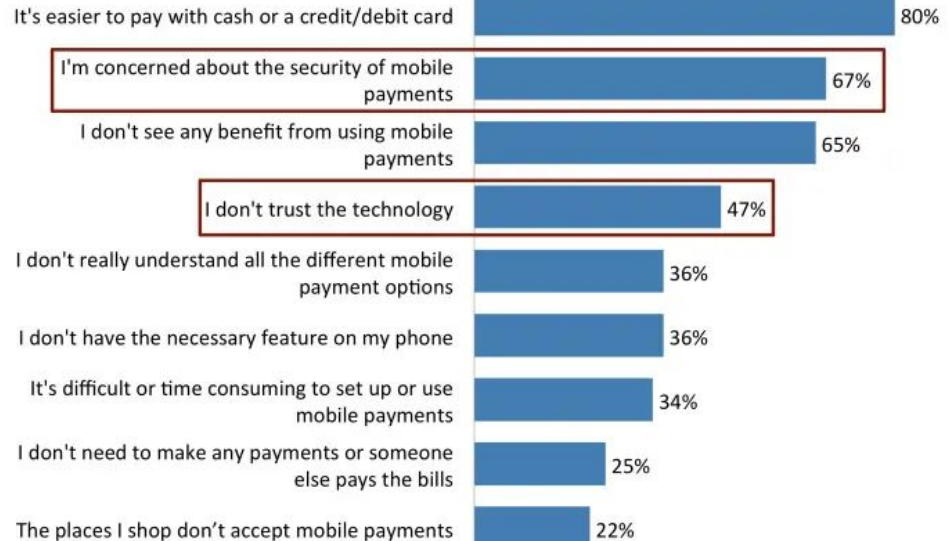
SECURITY:

How a blockchain works



Top Reasons Consumers Don't Use Mobile Payments

Among US nonusers of mobile payments, Q4 2015



Types of Digital Payment

Digital payments can be partially digital, primarily digital, or fully digital.

A **partially digital payment** is one in which both payer and payee use cash via third party agents, with providers making digital bank transfers in the backend.

A **primarily digital payment** might be one in which the payer initiates the payment digitally to an agent who receives it digitally but the payee receives the payment in cash from that agent.

A **fully digital payment** is one in which payer initiates the payment digitally, also the payee receives the payment in digital form; without involving any cash transaction in between.

Modes of Digital Payment



CONTACTLESS PAYMENTS



CREDIT AND DEBIT CARDS



ONLINE PAYMENTS



MOBILE MONEY



CHIP-AND-PIN



E-WALLET



WATCH

Modes of Digital Payment

Banking cards –

- ✓ most widely used payment methods
- ✓ come with various features such as security of payments, convenience, etc.
- ✓ can be used to make other types of digital payments.
- ✓ Some of the most reputed card payment systems are Visa, Rupay and MasterCard.
- ✓ can be used for online purchases, in digital payment apps, PoS machines, online transactions, etc.

How to get Banking cards?

- ✓ Apply with your respective bank and provide Know Your Customer (KYC) details
- ✓ The card will get activated within a week and you will be allotted a 4-digit pin, which can be used for all transactions



Modes of Digital Payment

Bank Pre-paid cards

- ✓ This is a type of payment instrument on to which you load money to make purchases.
- ✓ This type of card may not be linked to the bank account of the customer.
- ✓ However, a debit card issued by the bank is linked with the bank account of the customer.

How to Use a Prepaid Card?

- ✓ Apply for the card
- ✓ Get pin
- ✓ Load money from your bank account/debit card



Modes of Digital Payment

PoS terminals

- ✓ a critical piece of a point of purchase, refers to the place where a customer executes the payment for goods or services.
- ✓ Sales taxes become payable.
- ✓ It is usually a hand held device that reads banking cards.
- ✓ types of PoS terminals: Physical PoS, Mobile PoS and Virtual PoS.
- ✓ Physical PoS terminals are the ones that are kept at shops and stores.
- ✓ Mobile PoS terminals work through a tablet or smartphone.
- ✓ Virtual PoS systems use web-based applications to process payments.



Modes of Digital Payment

Unified Payments Interface - UPI

- ✓ interoperable payment system through which any customer holding any bank account can send and receive money through a UPI-based app.
- ✓ user can link more than one bank account on a UPI app on their smartphone
- ✓ initiate fund transfers and make collect requests on a 24/7 basis and on all 365 days.
- ✓ enables users to transfer money without a bank account or IFSC code, only VPA should be known.
- ✓ user should have a valid bank account and a registered mobile number, linked to the same bank account.
- ✓ no transaction charges for using UPI.
- ✓ UPI apps are available on both Android and iOS platforms.

How to use UPI?

- ✓ Download the app on Android or iOS platform
- ✓ Register for the service by providing bank account details
- ✓ Create a VPA, get an MPIN



Modes of Digital Payment

Bharat Interface for Money (BHIM) app

- ✓ This app allows users to make payments using the UPI application.
- ✓ One can link his/her bank account with the BHIM interface easily. It is also possible to link multiple bank accounts.
- ✓ The BHIM app can be used by anyone who has a mobile number, debit card and a valid bank account.
- ✓ Money can be sent to different bank accounts, virtual addresses or to an Aadhaar number.

How to Use BHIM App?

- ✓ Download and install the BHIM app
- ✓ Choose a language
- ✓ Register for the service by providing mobile number linked to bank account
- ✓ Add bank-related information and set up a UPI PIN by following the given instructions



Modes of Digital Payment

Unstructured Supplementary Service Data - USSD

- ✓ *99# is used to carry out mobile transactions without downloading any app.
- ✓ can also be made with no mobile data facility.
- ✓ facility is backed by the USSD along with the NPCI.
- ✓ service can be used to initiate fund transfers, get a look at bank statements and make balance queries.
- ✓ also available in Hindi.

How to Use *99#?

- ✓ This service can be used by dialling *99#, after which the customer can interact with an interactive voice menu through their mobile screen.
- ✓ To use the service the mobile number of the customer should be the same as the one linked to the bank account
- ✓ The next step is to register for USSD, MMID (Mobile Number Identifier) and MPIN



Modes of Digital Payment

Aadhaar Enabled Payment System - AEPS

- ✓ can be used for all types of banking transactions
- ✓ transactions are carried out through a banking correspondent based on Aadhaar verification.
- ✓ no need to physically visit a branch, provide debit or credit cards, or even make a signature on a document.
- ✓ for availing the service, Aadhaar number must be registered with the bank where you hold an account.

How to use AEPS?

- ✓ Register your Aadhaar number with the bank where you hold an account.
- ✓ For transactions, provide the accurate Aadhaar number and the payment will be successfully made to the concerned merchant



Modes of Digital Payment

Mobile Wallets

- ✓ a type of virtual wallet service that can be used by downloading an app.
- ✓ It stores debit/credit card information or bank account information in an encoded format to allow secure payments.
- ✓ One can also add money to a mobile wallet and use the same to make payments and purchase goods and services.
- ✓ this eliminated the need to use credit/debit cards or remember the CVV or 4-digit pin.
- ✓ mobile wallet apps in the market are paytm, mobikwik, freecharge etc.
- ✓ these may charge a certain transaction fee for the services offered.

How to use a mobile wallet?

- ✓ Download the app
- ✓ Register for the service by following instructions and providing all details
- ✓ Load money



Modes of Digital Payment

Internet Banking

- ✓ It refers to the process of carrying out banking transactions online.
- ✓ also referred to as e-banking or virtual banking.
- ✓ These include services such as transferring funds, opening a new fixed or recurring deposit, closing an account, etc.
- ✓ usually used to make online fund transfers via NEFT, RTGS or IMPS.
- ✓ Banks offer customers all types of banking services through their website and a customer can log into his/her account by using a username and password.
- ✓ No time restrictions for internet banking services and can be availed at any time and on all 365 days in a year.



Benefits of Digital Payment



Benefits of Digital Payment

One of the most significant advantages of digital payment is the **seamless experience they provide to customers**. Reduced dependency on cash, fast transfer speed, and the ease of transacting make online payments a preferred option. Besides these, digital payments offer following significant benefits:-



Cost savings through greater efficiency and speed.



Transparency and security by enhancing traceability and accountability, reducing corruption and theft as a result.

Benefits of Digital Payment



Financial inclusion by increasing access to a range of financial services, including savings accounts, credit and insurance products.



Women's economic participation by giving women more control over their financial lives and providing them greater economic opportunities.



Inclusive growth - digital payments help unlock economic opportunity for the financially excluded, and enable a more efficient flow of resources in the economy.

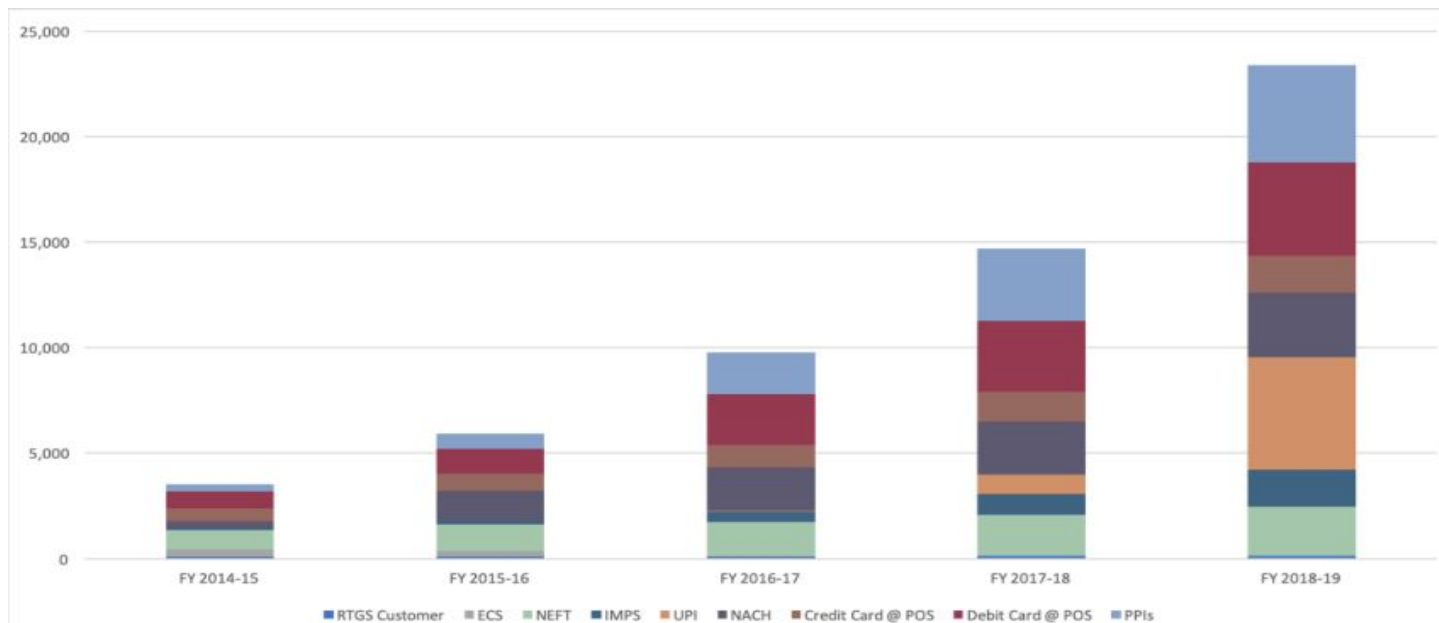
Challenges/Threats of Digital Payment

Inspite of so many advantages, consumers still don't use digital payments because of following reasons:-

- ✓Higher risk of identity theft – (Lack of Trust)
- ✓Security Concerns
- ✓Disputed Transactions
- ✓Increased Business Costs
- ✓Service Fees
- ✓Technical Problem
- ✓Remote Areas with no internet
- ✓Difficult for tech-unsavvy
- ✓Lack of awareness in rural areas
- ✓Pervasiveness
- ✓Habit
- ✓Friction
- ✓Need of using smartphone
- ✓Better data plans

Use of Digital Payment – Rising Trend

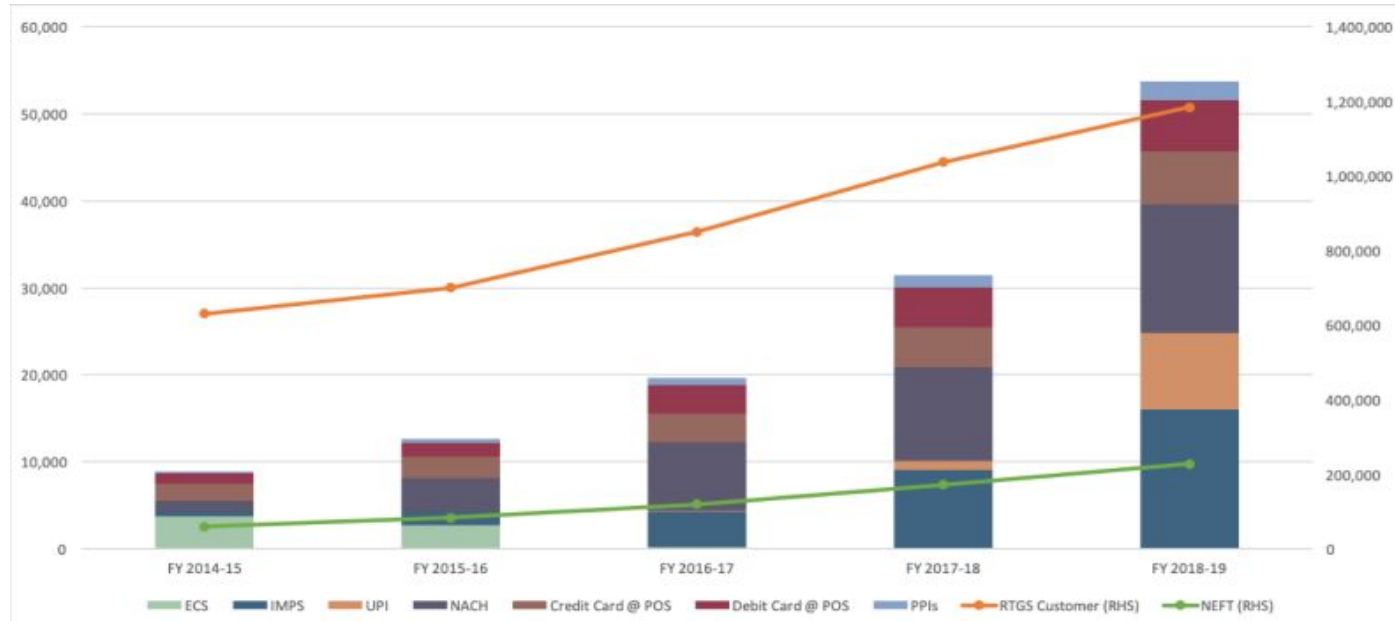
Based on the data from the RBI- Reserve Bank of India, we see the following growth in India



Digital payments by volume over last 5 years

Use of Digital Payment – Rising Trend

Based on the data from the RBI- Reserve Bank of India, we see the following growth in India



Digital payments by value over last 5 years

What has fuelled Digital Payment ?

Demonetization

High Smartphone Penetration

India's biometric identity card

Improved Digital Infrastructure

Low cost smartphone

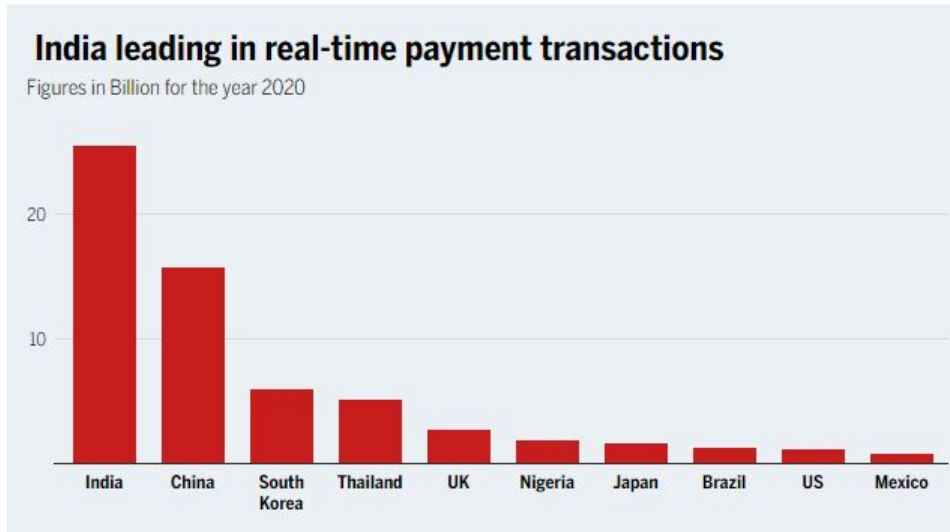
Reduced ATMs

Cheap Internet Data

Digital literacy

More UPI apps

More and more people are adopting digital payment system that India has outpaced the world in digital payments.



Future of Digital Payment

It is estimated that India's digital payments industry will grow to more than 300% of its current size by 2025.

The figure outlines the five key areas expected to be among the trending themes within the overall payments space in India.



Introducing Digital (Virtual) Currency in India

1. Digital currency or rupee is an electronic form of money, that can be used in contactless transactions.
2. The digital rupee will be the digital version of physical cash issued by the RBI and will, therefore, be sovereign backed.

Similarity between Digital rupee, bitcoin, doge, Ethereum

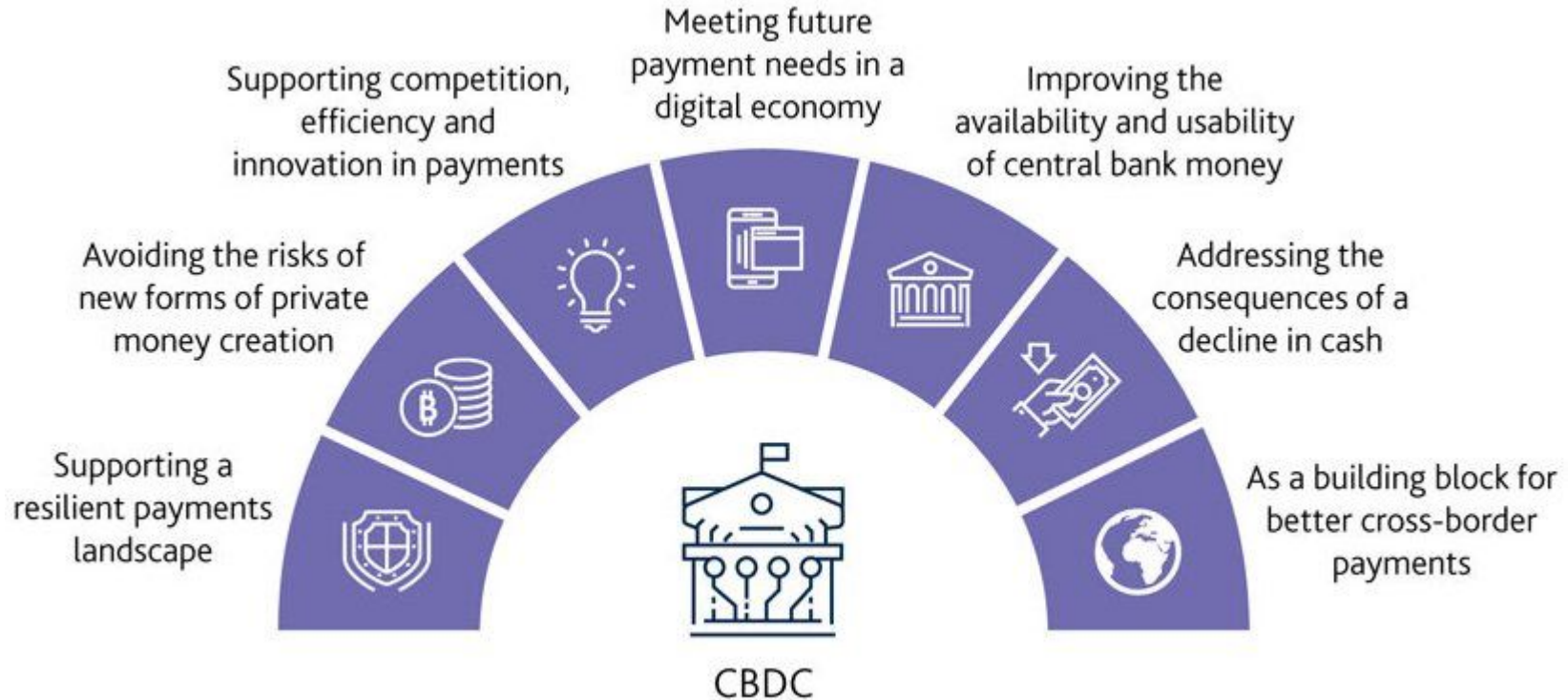
It is the same as bitcoin in terms of technology used that is Blockchain technology.

Difference between digital rupee and cryptocurrency

The Fundamental difference between the digital rupee and cryptocurrency will be that the digital rupee, being issued by RBI will most likely be Centralised.

“Introduction of a central bank digital currency will give a big boost to the digital economy. Digital currency will also lead to a more efficient and cheaper currency management system,” *Sitharaman had said in her Budget speech.*

Introducing Digital (Virtual) Currency in India



Impact of Digital Payment on India

Digital payment is one of the empowering system in India promoting digital India, which leads to transparency of cash in the country and directly control the black money in India by tax payment and transparent cash flow of every individual.

Digital payment helps India in every sector by providing security and safety in relation to cash and also by advancing the lifestyle by adoption of latest technologies for globalization and modernization of our country which leads to the development.

India government taking all the steps and polices as digital India, digitalization, demonetization, better infrastructure etc. leads to the development of India.

This step of the Indian government even attracted various investors in the country.

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Thank you
